



## SEQUENCE LISTING

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<120> Composition for Treating Pathology Associated with MSRV/HERV-W

<130> 128497

<140> PCT/FR2005/000156

<141> 2005-01-24

<160> 5

<170> PatentIn version 3.3

<210> 1

<211> 287

<212> PRT

<213> virus - MSRV/HERV-W

<400> 1

Ser Ser Ser Pro Tyr Gln Glu Phe Leu Trp Arg Thr Arg Leu Pro Gly  
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Asn Ile Asp Ala Pro Ser Tyr Arg Ser Leu Ser Lys Gly Asn Ser Thr  
20 25 30

Phe Thr Ala His Thr His Met Pro Arg Asn Cys Tyr Asn Ser Ala Thr  
35 40 45

Leu Cys Met His Ala Asn Thr His Tyr Trp Thr Gly Lys Met Ile Asn  
50 55 60

Pro Ser Cys Pro Gly Gly Leu Gly Ala Thr Val Cys Trp Thr Tyr Phe  
65 70 75 80

Thr His Thr Ser Met Ser Asp Gly Gly Gly Ile Gln Gly Gln Ala Arg  
85 90 95

Glu Lys Gln Val Lys Glu Ala Ile Ser Gln Leu Thr Arg Gly His Ser  
100 105 110

Thr Pro Ser Pro Tyr Lys Gly Leu Val Leu Ser Lys Leu His Glu Thr  
115 120 125

Leu Arg Thr His Thr Arg Leu Val Ser Leu Phe Asn Thr Thr Leu Thr  
130 135 140

Arg Leu His Glu Val Ser Ala Gln Asn Pro Thr Asn Cys Trp Met Cys  
145 150 155 160

Leu Pro Leu His Phe Arg Pro Tyr Ile Ser Ile Pro Val Pro Glu Gln

				165						170					175
Trp	Asn	Asn	Phe	Ser	Thr	Glu	Ile	Asn	Thr	Thr	Ser	Val	Leu	Val	Gly
			180					185					190		
Pro	Leu	Val	Ser	Asn	Leu	Glu	Ile	Thr	His	Thr	Ser	Asn	Leu	Thr	Cys
		195					200					205			
Val	Lys	Phe	Ser	Asn	Thr	Ile	Asp	Thr	Thr	Ser	Ser	Gln	Cys	Ile	Arg
	210					215					220				
Trp	Val	Thr	Pro	Pro	Thr	Arg	Ile	Val	Cys	Leu	Pro	Ser	Gly	Ile	Phe
225					230					235					240
Phe	Val	Cys	Gly	Thr	Ser	Ala	Tyr	His	Cys	Leu	Asn	Gly	Ser	Ser	Glu
				245					250						255
Ser	Met	Cys	Phe	Leu	Ser	Phe	Leu	Val	Pro	Pro	Met	Thr	Ile	Tyr	Thr
			260					265					270		
Glu	Gln	Asp	Leu	Tyr	Asn	His	Val	Val	Pro	Lys	Pro	His	Asn	Lys	
		275					280					285			
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<212> PRT															
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Met	Ala	Leu	Pro	Tyr	His	Thr	Phe	Leu	Phe	Thr	Val	Leu	Leu	Pro	Pro
1				5					10					15	
Phe	Ala	Leu	Thr	Ala	Pro	Pro	Pro	Cys	Cys	Cys	Thr	Thr			
			20					25							
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<213> virus - HSRV/HERV-W															
<400> 3															
Met	Ala	Leu	Pro	Tyr	His	Thr	Phe	Leu	Phe	Thr	Val	Leu	Leu	Pro	Pro
1				5					10					15	
Phe	Ala	Leu	Thr	Ala	Pro	Pro	Pro	Cys	Cys	Cys	Thr	Thr	Ser	Ser	Ser
			20					25					30		
Pro	Tyr	Gln	Glu	Phe	Leu	Trp	Arg	Thr	Arg	Leu	Pro	Gly	Asn	Ile	Asp
		35					40					45			
Ala	Pro	Ser	Tyr	Arg	Ser	Leu	Ser	Lys	Gly	Asn	Ser	Thr	Phe	Thr	Ala

50	55	60
His Thr His Met Pro Arg Asn Cys Tyr Asn Ser Ala Thr Leu Cys Met 65 70 75 80		
His Ala Asn Thr His Tyr Trp Thr Gly Lys Met Ile Asn Pro Ser Cys 85 90 95		
Pro Gly Gly Leu Gly Ala Thr Val Cys Trp Thr Tyr Phe Thr His Thr 100 105 110		
Ser Met Ser Asp Gly Gly Gly Ile Gln Gly Gln Ala Arg Glu Lys Gln 115 120 125		
Val Lys Glu Ala Ile Ser Gln Leu Thr Arg Gly His Ser Thr Pro Ser 130 135 140		
Pro Tyr Lys Gly Leu Val Leu Ser Lys Leu His Glu Thr Leu Arg Thr 145 150 155 160		
His Thr Arg Leu Val Ser Leu Phe Asn Thr Thr Leu Thr Arg Leu His 165 170 175		
Glu Val Ser Ala Gln Asn Pro Thr Asn Cys Trp Met Cys Leu Pro Leu 180 185 190		
His Phe Arg Pro Tyr Ile Ser Ile Pro Val Pro Glu Gln Trp Asn Asn 195 200 205		
Phe Ser Thr Glu Ile Asn Thr Thr Ser Val Leu Val Gly Pro Leu Val 210 215 220		
Ser Asn Leu Glu Ile Thr His Thr Ser Asn Leu Thr Cys Val Lys Phe 225 230 235 240		
Ser Asn Thr Ile Asp Thr Thr Ser Ser Gln Cys Ile Arg Trp Val Thr 245 250 255		
Pro Pro Thr Arg Ile Val Cys Leu Pro Ser Gly Ile Phe Phe Val Cys 260 265 270		
Gly Thr Ser Ala Tyr His Cys Leu Asn Gly Ser Ser Glu Ser Met Cys 275 280 285		
Phe Leu Ser Phe Leu Val Pro Pro Met Thr Ile Tyr Thr Glu Gln Asp 290 295 300		
Leu Tyr Asn His Val Val Pro Lys Pro His Asn Lys 305 310 315		

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<211> 538  
<212> PRT  
<213> virus - HERV-W7q

<400> 4

Met Ala Leu Pro Tyr His Ile Phe Leu Phe Thr Val Leu Leu Pro Ser  
1 5 10 15

Phe Thr Leu Thr Ala Pro Pro Pro Cys Arg Cys Met Thr Ser Ser Ser  
20 25 30

Pro Tyr Gln Glu Phe Leu Trp Arg Met Gln Arg Pro Gly Asn Ile Asp  
35 40 45

Ala Pro Ser Tyr Arg Ser Leu Ser Lys Gly Thr Pro Thr Phe Thr Ala  
50 55 60

His Thr His Met Pro Arg Asn Cys Tyr His Ser Ala Thr Leu Cys Met  
65 70 75 80

His Ala Asn Thr His Tyr Trp Thr Gly Lys Met Ile Asn Pro Ser Cys  
85 90 95

Pro Gly Gly Leu Gly Val Thr Val Cys Trp Thr Tyr Phe Thr Gln Thr  
100 105 110

Gly Met Ser Asp Gly Gly Gly Val Gln Asp Gln Ala Arg Glu Lys His  
115 120 125

Val Lys Glu Val Ile Ser Gln Leu Thr Arg Val His Gly Thr Ser Ser  
130 135 140

Pro Tyr Lys Gly Leu Asp Leu Ser Lys Leu His Glu Thr Leu Arg Thr  
145 150 155 160

His Thr Arg Leu Val Ser Leu Phe Asn Thr Thr Leu Thr Gly Leu His  
165 170 175

Glu Val Ser Ala Gln Asn Pro Thr Asn Cys Trp Ile Cys Leu Pro Leu  
180 185 190

Asn Phe Arg Pro Tyr Val Ser Ile Pro Val Pro Glu Gln Trp Asn Asn  
195 200 205

Phe Ser Thr Glu Ile Asn Thr Thr Ser Val Leu Val Gly Pro Leu Val  
210 215 220

Ser Asn Leu Glu Ile Thr His Thr Ser Asn Leu Thr Cys Val Leu Phe  
225 230 235 240

Ser Asn Thr Thr Tyr Thr Thr Asn Ser Gln Cys Ile Arg Tyr Val Thr  
245 250 255

Pro Pro Thr Gln Ile Val Cys Leu Pro Ser Gly Ile Phe Phe Val Cys  
260 265 270

Gly Thr Ser Ala Tyr Arg Cys Leu Asn Gly Ser Ser Glu Ser Met Cys  
275 280 285

Phe Leu Ser Phe Leu Val Pro Pro Met Thr Ile Tyr Thr Glu Gln Asp  
290 295 300

Leu Tyr Ser Tyr Val Ile Ser Lys Pro Arg Asn Lys Arg Val Pro Ile  
305 310 315 320

Leu Pro Phe Val Ile Gly Ala Gly Val Leu Gly Ala Leu Gly Thr Gly  
325 330 335

Ile Gly Gly Ile Thr Thr Ser Thr Gln Phe Tyr Tyr Lys Leu Ser Gln  
340 345 350

Glu Leu Asn Gly Asp Met Glu Arg Val Ala Asp Ser Leu Val Thr Leu  
355 360 365

Gln Asp Gln Leu Asn Ser Leu Ala Ala Val Val Leu Gln Asn Arg Arg  
370 375 380

Ala Leu Asp Leu Leu Thr Ala Cys Arg Gly Gly Thr Cys Leu Phe Leu  
385 390 395 400

Gly Glu Glu Cys Cys Thr Thr Val Asn Gln Ser Gly Ile Val Thr Glu  
405 410 415

Lys Val Lys Glu Ile Arg Asp Arg Ile Gln Arg Arg Ala Glu Glu Leu  
420 425 430

Arg Asn Thr Gly Pro Trp Gly Leu Leu Ser Gln Trp Met Pro Trp Ile  
435 440 445

Leu Pro Phe Leu Gly Pro Leu Ala Ala Ile Ile Leu Leu Leu Leu Phe  
450 455 460

Gly Pro Cys Ile Phe Asn Leu Leu Val Asn Phe Val Ser Ser Arg Ile  
465 470 475 480

Glu Ala Val Lys Leu Gln Met Glu Pro Lys Met Gln Ser Lys Thr Lys  
485 490 495

Ile Tyr Arg Arg Pro Leu Asp Arg Pro Ala Ser Pro Arg Ser Asp Val  
500 505 510

Asn Asp Ile Lys Gly Thr Pro Pro Glu Glu Ile Ser Ala Ala Gln Pro  
515 520 525

Leu Leu Arg Pro Asn Ser Ala Gly Ser Ser  
530 535

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<212> PRT  
<213> virus - MSRV

<400> 5

Met Ala Leu Pro Tyr His Thr Phe Leu Phe Thr Val Leu Leu Pro Pro  
1 5 10 15

Phe Ala Leu Thr Ala Pro Pro Pro Cys Cys Cys Thr Thr Ser Ser Ser  
20 25 30

Pro Tyr Gln Glu Phe Leu Trp Arg Thr Arg Leu Pro Gly Asn Ile Asp  
35 40 45

Ala Pro Ser Tyr Arg Ser Leu Ser Lys Gly Asn Ser Thr Phe Thr Ala  
50 55 60

His Thr His Met Pro Arg Asn Cys Tyr Asn Ser Ala Thr Leu Cys Met  
65 70 75 80

His Ala Asn Thr His Tyr Trp Thr Gly Lys Met Ile Asn Pro Ser Cys  
85 90 95

Pro Gly Gly Leu Gly Ala Thr Val Cys Trp Thr Tyr Phe Thr His Thr  
100 105 110

Ser Met Ser Asp Gly Gly Gly Ile Gln Gly Gln Ala Arg Glu Lys Gln  
115 120 125

Val Lys Glu Ala Ile Ser Gln Leu Thr Arg Gly His Ser Thr Pro Ser  
130 135 140

Pro Tyr Lys Gly Leu Val Leu Ser Lys Leu His Glu Thr Leu Arg Thr  
145 150 155 160

His Thr Arg Leu Val Ser Leu Phe Asn Thr Thr Leu Thr Arg Leu His  
165 170 175

Glu Val Ser Ala Gln Asn Pro Thr Asn Cys Trp Met Cys Leu Pro Leu  
180 185 190

His Phe Arg Pro Tyr Ile Ser Ile Pro Val Pro Glu Gln Trp Asn Asn  
195 200 205

Phe Ser Thr Glu Ile Asn Thr Thr Ser Val Leu Val Gly Pro Leu Val  
210 215 220

Ser Asn Leu Glu Ile Thr His Thr Ser Asn Leu Thr Cys Val Leu Phe  
225 230 235 240

Ser Asn Thr Ile Asp Thr Thr Ser Ser Gln Cys Ile Arg Tyr Val Thr  
245 250 255

Pro Pro Thr Arg Ile Val Cys Leu Pro Ser Gly Ile Phe Phe Val Cys  
260 265 270

Gly Thr Ser Ala Tyr His Cys Leu Asn Gly Ser Ser Glu Ser Met Cys  
275 280 285

Phe Leu Ser Phe Leu Val Pro Pro Met Thr Ile Tyr Thr Glu Gln Asp  
290 295 300

Leu Tyr Asn His Val Val Pro Lys Pro His Asn Lys Arg Val Pro Ile  
305 310 315 320

Leu Pro Phe Val Ile Arg Ala Gly Val Leu Gly Arg Leu Gly Thr Gly  
325 330 335

Ile Gly Ser Ile Thr Thr Ser Thr Gln Phe Tyr Tyr Lys Leu Ser Gln  
340 345 350

Glu Ile Asn Gly Asp Met Glu Gln Val Thr Asp Ser Leu Val Thr Leu  
355 360 365

Gln Asp Gln Leu Asn Ser Leu Ala Ala Val Val Leu Gln Asn Arg Arg  
370 375 380

Ala Leu Asp Leu Leu Thr Ala Lys Arg Gly Gly Thr Cys Leu Phe Leu  
385 390 395 400

Gly Glu Glu Arg Cys Thr Thr Val Asn Gln Ser Arg Ile Val Thr Glu  
405 410 415

Lys Val Lys Glu Ile Arg Asp Arg Ile Gln Cys Arg Ala Glu Glu Leu  
420 425 430

Gln Asn Thr Cys Arg Trp Gly Leu Leu Ser Gln Trp Met Pro Trp Thr  
435 440 445

Leu Pro Phe Leu Gly Pro Leu Ala Ala Ile Ile Phe Leu Leu Leu Phe

450

455

460

Gly Pro Cys Ile Phe Asn Phe Leu Val Lys Phe Val Ser Ser Arg Ile  
465 470 475 480

Glu Ala Val Lys Leu Gln Ile Val Leu Gln Met Glu Pro Gln Met Gln  
485 490 495

Ser Met Thr Lys Ile Tyr Arg Gly Pro Leu Asp Arg Pro Ala Arg Leu  
500 505 510

Cys Ser Asp Val Asn Asp Ile Cys Val Thr Pro Pro Glu Glu Ile Ser  
515 520 525

Thr Ala Gln Pro Leu Leu His Ser Asn Ser Val Gly Ser Ser  
530 535 540